

METHOD FOR ASCERTAINING NETWORK BANDWIDTH  
ALLOCATION POLICY ASSOCIATED WITH NETWORK ADDRESS

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ABSTRACT OF THE DISCLOSURE

10 A network comprises a local group of network  
workstations and clients that periodically need access to a  
wide area network like the Internet. A class-based queue  
traffic shaper is placed in between and enforces multiple  
service-level agreement policies on individual connection  
sessions by limiting the maximum data throughput for each  
connection. The class-based queue traffic shaper  
distinguishes amongst datapackets according to their  
15 respective source and/or destination IP-addresses. Which  
policy is appropriate to enforce is found by placing all IP-  
addresses with policies attached to them into an ordered list  
of three-byte segment numbers. The least significant byte of  
an IP-address is dropped to form a segment number.  
20 Classification then depends on finding the IP-address in a  
datapacket to the ordered list of segment numbers. If a  
match occurs, an index lookup table for the respective  
segment allows the least-significant fourth byte of the IP-  
address to point to the bandwidth policy to use.

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